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ABSTRACT OF THE DISCLOSURE

10 A ring network, which can reduce the amount of
processing, deal with the occurrence of faults, and
lighten the load on an operator, comprised with a
plurality of transmission apparatuses each including a
cross-connect function unit and a communication function
unit for sending and receiving messages using the
overhead of an SDH frame, and a master transmission
15 apparatus to which a command is input for switching from
a UPSR to BLSR mode including a path management database,
a path decision unit, and an interchange decision unit.
The master transmission apparatus to which said command
has been input for collecting and storing path setting
20 information of all of the transmission apparatuses in the
path management database and sequentially performing
processing for deciding on and deleting a long path and
processing for interchanging a path on a protection
channel to an idle work channel by sending and receiving
25 a message.